

Basin 2: Poultney and Mettawee Rivers.

Including the following sites:

Sucker Brook Cascades	Sucker Brook, Hubbardton and Castleton
Carver Falls	Poultney River, West Haven
Flower Brook Cascades	Flower Brook, Pawlet

See the Appendix for:

Gully Brook Ravine	Gully Brook, West Haven
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This basin includes the west slopes of the Taconic Mountains in central western Vermont, and the southern end of the Lake Champlain Plain. The basin contains some high mountains in Dorset and Danby and a major part of the Taconic crest in Castleton. Otherwise it is mostly lowlands. Compared to the Green Mountains the rocks are softer and less folded (the western edge of the basin is a major slate-producing area) and without abrupt changes in bedding and hardness. Hence, we judge it a poor area for waterfalls and gorges. Small mountain cascades and falls are known to occur on Dorset and Danby mountains, and probably elsewhere. What the prospect is for unknown areas of state significance we cannot say.

Only three sites are described in this basin.* Flower Brook is a minor gorge in the middle of the Village of Pawlet and a former mill site. Carver Falls is the highest falls in Vermont, and currently important both as a natural area and as a hydroelectric site. Sucker Brook is a small but handsome wooded cascade near Lake Bomoseen, formerly a popular local recreational site but now closed to the public.

* Since these reports were written, we have visited Button Falls, on the Mettawee River, approximately one and one-half miles from the New York/Vermont border. South of Button Falls Road, there is a wide gorge and superb swimming hole with a falls 15-20 feet high. North of this road, there is a narrow limy gorge with some fine swimming pools and very handsome rocks. One rare plant (the brooklime Veronica catenata) was found along the river below the gorge.

Report 2, Sucker Brook Cascade, Sucker Brook, Hubbardton and Castleton, Rutland County, Vermont.

Site not numbered by the state, surveyed on 17 August 1984 by P.F. Zika.

A small steep cascade. No dam.

Atlas map 18, USGS Bomoseen 7.5-minute quadrangle. Take Route 30 to Lake Bomoseen; one mile south of the north end of the lake turn east on a road that runs almost due south; go one mile, turn east; go one-quarter mile, turn southeast; park just before the bridge that crosses Sucker Brook. The landowner (Malcolm Vail, RFD 1, P.O. Box 2156, Castleton, Vermont) has posted the property and lives nearby.

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Sucker Brook Cascade is in a forest with a few scattered houses. The access road is a dead-end and poorly maintained. The Vails live near the site and there has been some recent logging along the stream. Otherwise the area is undisturbed.

Sucker Brook is a small mountain stream. It was visited shortly after a rainstorm, and had a moderate flow. Some brown and green algae are present on the wet rocks, and larvae of caddisflies, mayflies, and midges are common. Minnows live in the pool at the base of the cascade. The streambed is a shingle or cobble of flat pieces of slate.

Approaching the cascades from upstream there are first a few cascades between three and six feet in height. Then the stream separates into three narrow channels and falls three to four feet, and then these channels unite and there is a steep cascade about 12 feet. Then there is a steep-sided ravine approximately 20 feet deep and 150 feet long, with some nice pools. Below the ravine the stream enters a swamp.

The rock at the site is a limy slate from the Cambrian West Castleton formation. A thrust fault is near this area but probably is unrelated to the formation of this cascade. The slates are bedded at a very steep angle where they are exposed along the cascade, and are handsome. Several potholes under one foot in diameter are present. There is a bit of sculpted and rippled rock by the brink of the cascade.

The vascular plants at the cascades are ordinary. Bryophytes are common on the rocks, but there are only a few species.

Before the land was posted, the cascade was a popular recreational area and was used for camping, swimming, picnicking, and parties. The landowner objected to this and closed the site. He said that use increased greatly after the site was listed on

the state natural areas survey, that there still is a problem with trespassers, and that he would prefer that the site is not publicized.

The cascade and ravine are small but undisturbed, and quite nice. It is a pleasant swimming hole with a nice woodland setting. Some old hemlocks along the shores provide deep shade and add to the appeal of the brook. Unfortunately the wooded corridor along the stream is narrow and recent logging on either side of Sucker Brook has eliminated almost all of the adjacent trees, in places to within 50 feet of the water. This greatly decreases the attractiveness of the cascades. We recommend that the landowner be approached for an easement to perpetually preserve the site as a natural area.

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Summary: Woodland setting, average rocks and biology, private, clean, clean water, receives some local use as a campsite and swimming hole. The landowner wishes to preserve the site as a natural area.

Vascular Plants Seen at Sucker Brook Cascade

Tsuga canadensis	Eupatorium perfoliatum
Betula alleghaniensis	E. rugosum
Fagus grandifolia	Taraxacum officinale
Tilia americana	Lycopus uniflorus
Betula papyrifera	Mitella diphylla
Populus grandidentata	Epilobium glandulosum
Acer pensylvanicum	Laportea canadensis
Vaccinium angustifolium	Galium triflorum
Rubus idaeus	Pilea pumila
Corylus cornuta	Mentha arvensis
Dryopteris marginalis	Verbascum thapsus
Cystopteris bulbifera	Veronica officinalis
Thelypteris phegopteris	Hieraceum scabrum
Athyrium filix-femina	Potentilla norvegica
Polypodium virginianum	Erigeron canadensis
Maianthemum canadense	Cerastium vulgatum
Aralia racemosa	Lobelia inflata
A. nudicaulis	Cinna latifolia
Aster divaricatus	Poa compressa
A. lateriflorus	
A. puniceus	

Report 3, Carver Falls, Poultney River, West Haven, Rutland County, Vermont.

Site 946, surveyed 2 October 1983 by J.C. Jenkins.

The highest major falls in Vermont; two large falls at the head of a large limestone gorge; a spectacular site but much altered by hydropower development. The state's best example of a "New York type" falls and gorge.

Atlas map 17, USGS Benson and Thorn Hill 7.5' quadrangles. Dam and upper falls most easily accessible from the NY (south side), by road. Lower falls and gorge accessible by going to the end of the dirt road and then walking across the fields and down into the gorge.

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Located on the VT/NY border about five miles above the mouth of the Poultney River, in moderately low, flat dairy country. The river lies in a wooded ravine which is about 100 feet deep above the falls and 200 feet deep below them. The general topography - flat country, low hills, not much dissection, gentle transitions between terraces and slopes - is typical of the Champlain Valley. The site itself - an abrupt ravine with sharp crests incised below the level of the surrounding country - is the sort of feature that develops in areas with fairly soft bedrock and hence, is not typical of Vermont.

The site is a very steep-walled gorge, with cedar, pine, and hardwoods in the gorge and second-growth hardwoods on old agricultural land at its edge. The site is industrialized: there is a major dam about 250 feet long by 20-25 feet high above the falls; an abandoned penstock crosses the top of the falls below the dam; a new penstock runs parallel to the falls down the west bank; there is a stone powerhouse down in the ravine, and a house, fences and grounds, presumably for the maintenance staff, above the powerhouse. There is also a dog (large, loud, cowardly) who guards the dam.

The river is a medium to large lowland river; average size could not be observed because of the gorge. It receives municipal wastes from Poultney, Castleton and Fair Haven. It is Class C water upstream and is Class B below the Castleton River and hence, in the area of the falls. Because of the dam and consequent lack of oxygenation, and because of the fertility of the water (it drains a heavily-farmed area as well as receiving the discharges from the sewage treatment plants) the river appears to be deoxygenated and somewhat unattractive below the dam.

The natural part of the site consists of a double falls: looking down from the dam, there is a horseshoe-shaped falls (the only one in Vermont?) about 250-300 feet across by 50 feet high.

This concentrates the water into a steep chute about 100 feet long, where it then goes over a second falls about 100 feet wide by 60 feet high. At the bottom there is a pool about 50 feet across, after which the river makes a sharp turn, goes through a rocky gorge about 30 feet wide at the bottom with walls from 20-80 feet high, and then into a wider portion of the channel. The gorge is what is called a "shut-in" in the midwest: a narrow rock-walled gorge abruptly incised into generally flatter land.

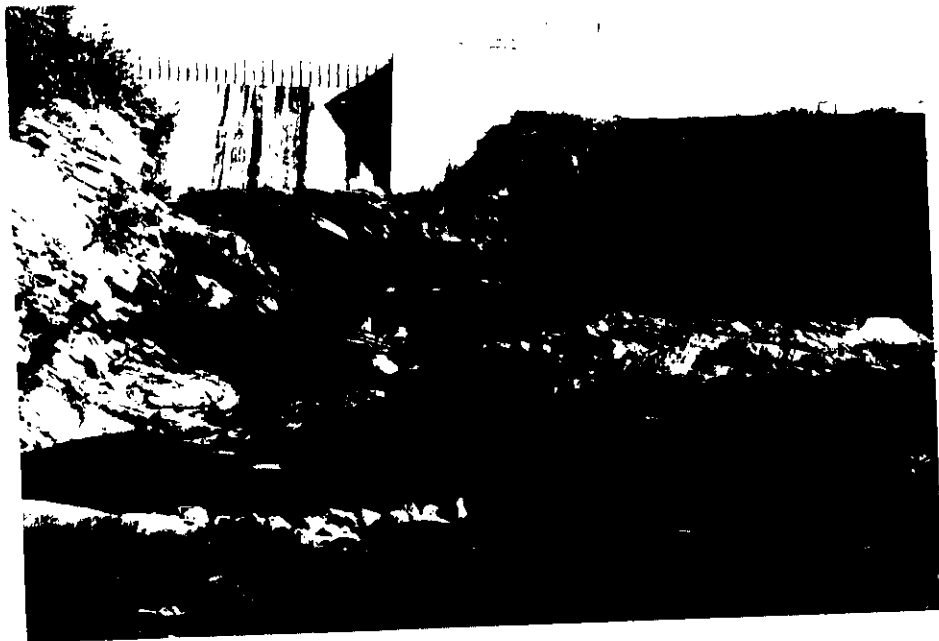
The rock is limy. Quite possibly the falls are at the contact between the Ordovician Middlebury limestone and Chipman dolomite, but there are a lot of rock types mapped in this area and I am not sure. The rock is highly jointed and breaks off in chunks rather than being worn away, resulting in a jagged-walled, sharp-crested gorge of the type seen more commonly west of here. The rock exposures are spectacular, but not really sculptured. They have not been shaped by the water as much as just chipped away along the bedding planes, leaving a lot of abrupt angles and a surprisingly complicated surface for a limestone area.

Because of the high rock walls and the lime, the gorge appears to be a good site for vascular plants. One rarity (pignut hickory) was found. It is quite possible that others occur (especially since West Haven is a town with a number of rare limestone plants) and the area should be checked earlier in the year.

There were a number of areas with good moss cover on the gorge walls, but to my surprise there were very few species present. I recorded only eight species and three of these were in limy seepage where a small side stream comes in and not on the walls. This seems abnormal: even the heavily industrialized falls of the Otter at Proctor have 12 species and I might have expected 20-30 in a site like this. I conjecture that this is a result of the diversion of water; the only flow over the falls in the summer comes from a few leaks in the dam and since the gorge is fairly wide and the main rock wall faces west this may not be enough to maintain the humidity that mosses need. In support of this it might be noted that none of the mosses normally characteristic of continuously wet limy rocks (Campylium, Gymnostomum, etc.) was seen at all.

There do not seem to be any trails to the bottom of the falls; the area is a potentially fine swimming and fishing area, but suffers badly from low summer flows and pollution. There are at least two trails down to the gorge just below the powerhouse and appear to receive a moderate amount of use.

I am left with very mixed feelings about this site: it is the widest and highest falls in the state; it empties into a fine narrow rocky gorge and is our best example of a deep limestone gorge of the Finger Lakes type. But there is not enough summer spillage to oxygenate the river, and the main falls are altered by the dam and penstock.



CARVER FALLS - DAM



CARVER FALLS - BELOW DAM

The site might be improved in two ways. First, some provision could be made for better summer flows. Second, the old penstock, which is awkward and ugly and right on top of the falls could be removed. This would make it impossible to see any part of the dam and related structures from the bottom of the falls, and make it possible to use the site recreationally.

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Summary: Developed for hydroelectric generation, spectacular rocks and falls but altered and degraded by dam, average botany with a possibility for rare vascular plants, not wild but moderately secluded, no trash, mildly polluted water or worse.

HIGH IMPORTANCE: The largest falls, both in height and width, in the state; also the largest "New York type" gorge and falls combination.

WE RECOMMEND THAT SOME THOUGHT BE GIVEN TO RESTORING THIS SITE. IT IS ONE OF THE MOST SPECTACULAR IN THE STATE AND WOULD BE A VERY BEAUTIFUL PLACE IF THE ABANDONED PENSTOCK WAS REMOVED AND IF THERE WERE ADEQUATE FLOWS YEAR ROUND.

Plants Seen at Carver Falls

Mosses and Liverworts

Amblystegium tenax
Marchantia polymorpha
Philonotis fontana
Drepanocladus uncinatus

Grimmia alpicola
Bryum pseudotriquetrum
Brachythecium rivulare
Thuidium sp.

Vascular plants

Xanthium strumarium
Bidens frondosa
Scutellaria lateriflora
Lycopus americanus
Ambrosia artemisiifolia
Trifolium pratense
Salix rigida
Aster lateriflorus
Campanula rotundifolia
Eupatorium perfoliatum
Fragaria virginiana
Saxifraga virginica
Panicum lanuginosum
Solidago canadensis
Potentilla argentea
Myosotis scorpioides
Geranium robertianum
Chelone glabra
Equisetum arvense
Glyceria striata
Solidago rugosa
Cystopteris bulbifera
Elymus riparius
Vitis riparia
Lysimachia nummularia
Platanus occidentalis
Quercus rubra
Tilia americana
Verbena hastata
Taxus americana
Acer rubrum
Betula lenta
Aster laevis
Solidago juncea
Antennaria neglecta

Bidens tripartita
Bidens cernua
Lycopus virginicus
Lythrum salicaria
Rumex crispus
Polygonum persicaria
Tussilago farfara
Poa compressa
Eupatorium rugosum
Ulmus americanus
Oenothera sp.
Melilotus alba
Panicum capillare
Juncus dudleyi
Mentha arvensis
Geranium maculatum
Cyperus dentatus
Alnus rugosa
Solidago graminifolia
Solidago gigantea
Desmodium sp.
Erigeron annuus
Rorippa sp.
Cornus stolonifera
Rudbeckia hirta
Salix discolor
Tsuga canadensis
Muhlenbergia frondosa
Rhus toxicodendron
Panicum clandestinum
Celastrus scandens
Aster cordifolius
Carya ? *glabra*
Chrysanthemum leucanthemum

Report 4, Flower Brook Cascade, Flower Brook, Pawlet, Rutland County, Vermont.

Site EE, briefly noted from a survey on 3 September 1983 by J.C. Jenkins.

A small gorge and cascade, formerly developed as a mill site, in the middle of the Village of Pawlet.

Atlas map 9, USGS Pawlet 7.5' quadrangle; right behind the general store and under the Route 30 bridge.

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Briefly noted: a small limestone gorge, 15-30 feet deep, about 200 feet long, mostly under 40 feet wide, dammed at the upper end, formerly a mill site. Flower Brook Hydro, Inc. has developed a 16KW hydroelectric facility at the site. The penstock bypasses the gorge. The facility maintains a minimum flow over the dam and through the gorge so the gorge is not dewatered. No rare plants, a few mosses but not very interesting. Some pretty rock walls, but distinctly an urban site.

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Summary: Urban setting, developed for hydroelectric generator, average rocks, no seclusion or wildness, mostly clean site with clean water, not used recreationally.